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CERTIFICATE No.
JMI-0062
ISO 9001/BS 5750Pt1
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HITACHI

Ultra Compact Black-and-White CCD Camera KP-M22/M32



Ultra compact black-and-white CCD camera of 29mm square type body featuring high sensitivity, high resolution and high performance A variety of functions are provided.

KP-M22: 1/2-inch 400,000-pixel CCD KP-M32: 1/3-inch 400,000-pixel CCD Both models are provided with a variety of functions including multi-step electronic shutter, HD/VD external sync and integration mode switching.

Features

- **Ultra compact and lightweight**
In spite of ultra compact size, the KP series cameras features various functions and high performance. Video signal can be obtained only by supplying 12 VDC power.
- **High resolution**
Horizontal resolution of 570 TVL(560 TVL CCIR), vertical resolution of 485 TVL(575 TVL CCIR) The latest high grade CCD used. No. of total pixels:410,000(470,000 CCIR), No. of effective pixels:768(H) x 494(V) (752(H) x 582(V) CCIR).
- **Multi-step electronic shutter function**
Eight shutter speeds can be selected between 1/100 (1/120 CCIR) seconds and 1/10,000 seconds.
- **Internal/External sync modes**
Sync mode and scanning system are automatically switched according to the kinds of the external input signal.
- **Frame/Field integration mode switching function**
By combining this mode and the electronic shutter function, it is possible to obtain the optimum image most suitable for each application.
- **Anti-vibration design**
Die-cast aluminium is employed in consideration of anti-vibration performance.

Major specifications

Imaging device	KP-M22: 1/2-inch Inter-line CCD KP-M32: 1/3-inch Inter-line CCD
No. of total pixels	EIA: 811(H) x 508(V) CCIR: 795(H) x 596(V)
Pixel size	KP-M22 EIA: 8.4 um(H) x 9.8 um(V) CCIR: 8.6 um(H) x 8.3 um(V) KP-M32 EIA: 6.35 um(H) x 7.4 um(V) CCIR: 6.5 um(H) x 6.25 um(V)
No. of effective pixels	EIA: 768(H) x 494(V) CCIR: 752(H) x 582(V)
Sensing area	KP-M22 EIA: 6.45 mm(H) x 4.84 mm(V) CCIR: 6.47 mm(H) x 4.83 mm(V) KP-M32 EIA: 4.88 mm(H) x 3.66 mm(V) CCIR: 4.89 mm(H) x 3.64 mm(V)
Signal system	EIA/CCIR
Lens mount	C-mount
Flange focal distance	17.526 mm (Not adjustable)
Hor. scanning frequency	EIA: 15.734 kHz CCIR: 15.625 kHz
Vert. scanning frequency	EIA: 59.94 Hz CCIR: 50 Hz
Sync system	Int./Ext. (Automatically switched)
Int. sysnc system	2:1 interlaced
Ext. sysnc input	HD/VD: 2 to 6 Vp-p, negative Impedance: 1 kΩ Frequency deviation: ±1%
Video output	1.0 Vp-p/75 Ω unbalanced, 1 output Video: 0.7 Vp-p, Sync: 0.3 Vp-p, negative
Resolution	EIA: 570 TVL(H) x 485 TVL(V) CCIR: 560 TVL(H) x 575 TVL(V)
Sensitivity	KP-M22: 400 lx, f/8, 3200 K KP-M32: 400 lx, f/5.6, 3200 K

Minimum illumination	0.3 lx, f/1.4, AGC: ON, Gamma: ON, no IR cut filter
Signal-to-noise ratio	Better than 56 dB
Electronic shutter modes	1/10,000, 1/4000, 1/2000, 1/1000, 1/500, 1/250, 1/125, 1/120(CCIR), 1/100(EIA), OFF (Normal exposure) All modes settable by internal switches. Set to OFF at factory.
Integration modes	Field/Frame modes switchable
Gamma correction	1 or correction (Settable by internal switch) Set to 1 at factory.
Sensitivity switching	FIX, AGC or MANUAL settable by external switches. Set to FIX at factory.
External trigger signal	Field-On-Demand
Power supply	12 VDC ±1 V
Power consumption	120 mA approx.
Ambient conditions	Operating: -10 to 50 °C, 90%RH Storage: -20 to 60 °C, 70%RH
Anti-vibration	98 m/s ² (10 to 60 Hz, Amplitude: 0.98 mm const., 60 to 200 Hz, Const. acceleration, Const. amplitude) 10 to 200 Hz, Sweep: 1 min. 3 directions, Duration: 30 min. ea.
Anti-shock	686 m/s ² (top, bottom, left and right panels, once ea.)
Dimensions	29(W) x 29(H) x 62(L) mm
Mass	100 g approx.

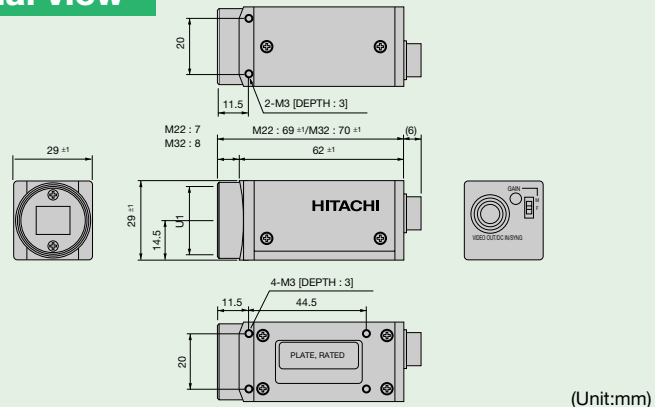
● Standard composition

- (1) Camera body (w/IR cut filter) 1
- (2) Operation manual 1

● Optional accessories

- (1) Tripod adaptor, TA-F3
- (2) 12-pin plug, HR10A-10P-12S(01)
- (3) AC adaptor, AP-130
- (4) Junction box, JU-M1A
- (5) Dummy glass (AR-coated), ARC1214
- (6) Camera cable

External view



Specification are subject to change without notice.

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